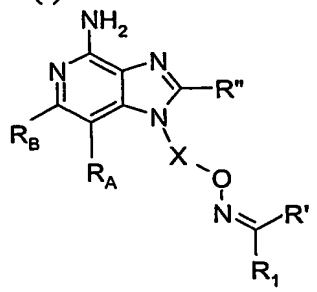
WHAT IS CLAIMED IS:

1. A compound of formula (I)



I

wherein:

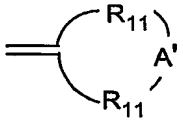
X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

R_1 and R' are independently selected from the group consisting of:

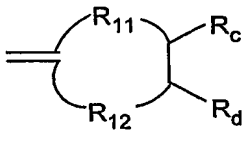
hydrogen,
alkyl,
alkenyl,
aryl,
arylalkylenyl,
heteroaryl,
heteroarylalkylenyl,
heterocyclyl,
heterocyclylalkylenyl, and
alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:
hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
alkoxy,

dialkylamino,
-S(O)$_{0-2}$-alkyl,
-S(O)$_{0-2}$-aryl,
-NH-S(O)$_2$-alkyl,
-NH-S(O)$_2$-aryl,
haloalkoxy,
halogen,
nitrile,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
-C(O)-N(R_8)$_2$,
-N(R_8)-C(O)-alkyl,
-O-C(O)-alkyl, and
-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_A and R_B are each independently selected from the group consisting of:

hydrogen,
halogen,
alkyl,
alkenyl,
alkoxy,
alkylthio, and
$-N(R_9)_2$;

or when taken together, R_A and R_B form a fused aryl ring or heteroaryl ring containing one heteroatom selected from the group consisting of N and S, wherein the aryl or heteroaryl ring is unsubstituted or substituted by one or more R''' groups;

or when taken together, R_A and R_B form a fused 5 to 7 membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more R groups;

R is selected from the group consisting of:

halogen,
hydroxyl,
alkyl,
alkenyl,
haloalkyl,
alkoxy,
alkylthio, and
$-N(R_9)_2$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and $-CH_2-$;

Q is selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

W is selected from the group consisting of a bond, -C(O)-, and $-S(O)_2-$;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or

R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

each R_6 is independently selected from the group consisting of =O and =S;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R" is hydrogen or a non-interfering substituent; and

each R'" is a non-interfering substituent;

or a pharmaceutically acceptable salt thereof.

2. The compound or salt of claim 1 wherein X is -CH(R_{9a})-alkylene-, wherein the alkylene is optionally interrupted by one or more -O- groups.

3. The compound or salt of claim 2 wherein X is -C_{3-5} alkylene- or -$CH_2CH_2OCH_2CH_2$-.

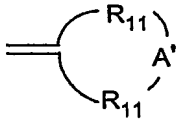
4. The compound or salt of any one of claims 1 through 3 wherein at least one of R' or R_1 is hydrogen.

5. The compound or salt of any one of claims 1 through 3 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

6. The compound or salt of claim 5 wherein at least one of R' or R_1 is aryl or substituted aryl and at least one of R' or R_1 is hydrogen.

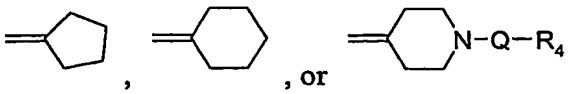
7. The compound or salt of claim 5 wherein at least one of R' or R_1 is heteroaryl or substituted heteroaryl and at least one of R' or R_1 is hydrogen.

8. The compound or salt of any one of claims 1 through 3 wherein R_1 and R' join together to form a ring system of the formula



, wherein A' is -N(-Q-R_4)- or -CH_2-, Q is a bond or -C(O)-, and R_4 is alkyl.

9. The compound or salt of claim 8 wherein the ring system is



, , or .

10. The compound or salt of any one of claims 1 through 3 wherein R_1 and R' are each methyl.

11. The compound or salt of any one of claims 1 through 10 wherein:

R" is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

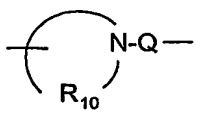
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

$-C(R_6)-N(OR_9)-$,



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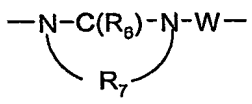

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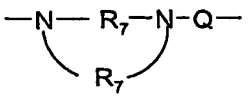
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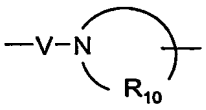
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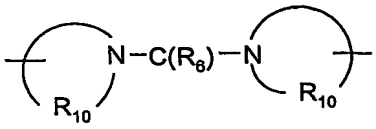
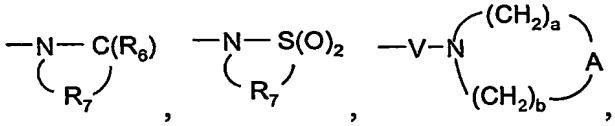

;

R_5 is selected from the group consisting of: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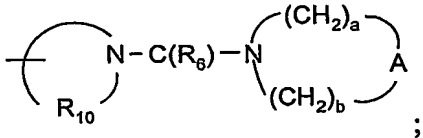

and ;

each R_7 is independently C_{2-7} alkylene;

each R_{10} is independently C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7.

12. The compound or salt of any one of claims 1 through 10 wherein R" is hydrogen, alkoxyalkylenyl, $-R_4$, -X'-R_4, or -X'-Y-R_4; wherein X' is C_{1-2} alkylene; Y is $-S(O)_{0-2}-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-$, $-C(R_6)-O-$, $-O-C(R_6)-$, -O-C(O)-O-, $-N(R_8)-Q-$, $-C(R_6)-N(R_8)-$, $-O-C(R_6)-N(R_8)-$, or $-C(R_6)-N(OR_9)-$; and R_4 is alkyl.

13. The compound or salt of claim 12 wherein R" is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

14. The compound or salt of claim 13 wherein R" is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, 2-methoxyethyl, and methoxymethyl.

15. The compound or salt of any one of claims 1 through 10 wherein R" is selected from the group consisting of:

hydrogen,
alkyl,
alkenyl,
aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and

-C(O)-heteroaryl;

wherein:

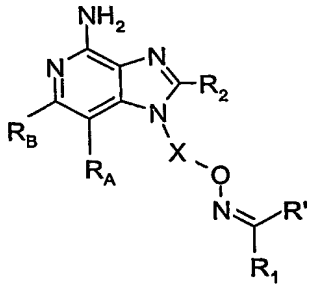
Y" is –O– or –S(O)$_{0-2}$-; and

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl.

16. The compound or salt of any one of claims 1 through 15 wherein R_A and R_B form a fused aryl ring or heteroaryl ring containing one N, wherein the aryl ring or heteroaryl ring is unsubstituted.

17. The compound or salt of any one of claims 1 through 15 wherein R_A and R_B form a fused 5 to 7 membered saturated ring, optionally containing one N, wherein the saturated ring is unsubstituted.

18. A compound of the formula (II):



II

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

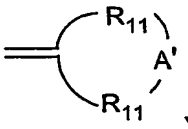
alkyl,

alkenyl,

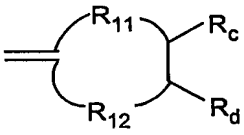
aryl,
arylalkylenyl,
heteroaryl,
heteroarylalkylenyl,
heterocyclyl,
heterocyclylalkylenyl, and
alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:
hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
alkoxy,
dialkylamino,
-$S(O)_{0-2}$-alkyl,
-$S(O)_{0-2}$-aryl,
-NH-$S(O)_2$-alkyl,
-NH-$S(O)_2$-aryl,
haloalkoxy,
halogen,
nitrile,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
-C(O)-$N(R_8)_2$,

-N(R_8)-C(O)-alkyl,
-O-C(O)-alkyl, and
-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_A and R_B are each independently selected from the group consisting of:
hydrogen,
halogen,
alkyl,
alkenyl,
alkoxy,
alkylthio, and
-N(R_9)$_2$;

or when taken together, R_A and R_B form a fused aryl ring or heteroaryl ring containing one heteroatom selected from the group consisting of N and S, wherein the aryl or heteroaryl ring is unsubstituted or substituted by one or more R groups, or substituted by one R_3 group, or substituted by one R_3 group and one R group;

or when taken together, R_A and R_B form a fused 5 to 7 membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more R groups;

R is selected from the group consisting of:
halogen,
hydroxyl,

alkyl,
alkenyl,
haloalkyl,
alkoxy,
alkylthio, and
$-N(R_9)_2$;

R_2 is selected from the group consisting of:

$-R_4$,
$-X'-R_4$,
$-X'-Y-R_4$, and
$-X'-R_5$;

R_3 is selected from the group consisting of:

$-Z-R_4$,
$-Z-X'-R_4$,
$-Z-X'-Y-R_4$, and
$-Z-X'-R_5$;

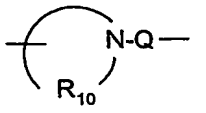
each X' is independently selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

each Y is independently selected from the group consisting of:

$-S(O)_{0-2}-$,
$-S(O)_2-N(R_8)-$,
$-C(R_6)-$,
$-C(R_6)-O-$,
$-O-C(R_6)-$,
$-O-C(O)-O-$,
$-N(R_8)-Q-$,
$-C(R_6)-N(R_8)-$,

-O-C(R_6)-N(R_8)-,

-C(R_6)-N(OR_9)-,



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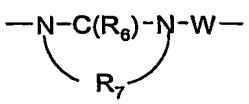

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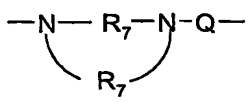

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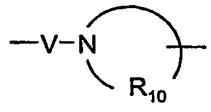

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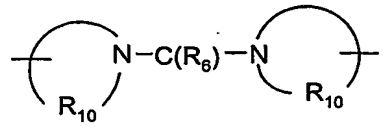
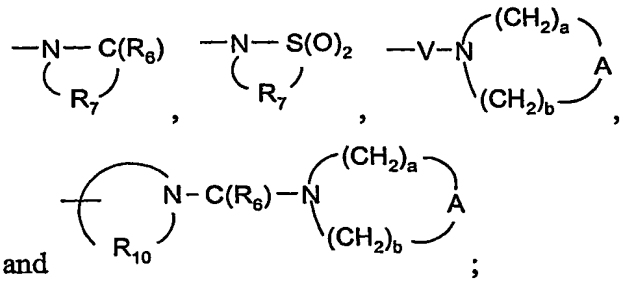


;

Z is a bond or -O-;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

each R_5 is independently selected from the group consisting of:



and ;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

each A is independently selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and $-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and

$-C(R_6)-N(OR_9)-$;

each V is independently selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, -C(O)-, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

or a pharmaceutically acceptable salt thereof.

19. The compound or salt of claim 18 wherein X is $-CH(R_{9a})$-alkylene-, wherein the alkylene is optionally interrupted by one or more -O- groups.

20. The compound or salt of claim 19 wherein X is $-C_{3-5}$ alkylene- or $-CH_2CH_2OCH_2CH_2-$.

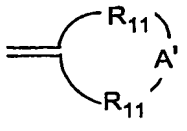
21. The compound or salt of any one of claims 18 through 20 wherein at least one of R' or R_1 is hydrogen.

22. The compound or salt of any one of claims 18 through 20 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

23. The compound or salt of claim 22 wherein at least one of R' or R_1 is aryl or substituted aryl and at least one of R' or R_1 is hydrogen.

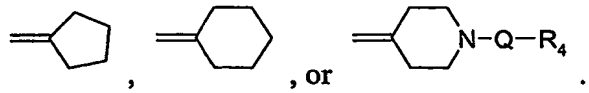
24. The compound or salt of claim 22 wherein at least one of R' or R_1 is heteroaryl or substituted heteroaryl and at least one of R' or R_1 is hydrogen.

25. The compound or salt of any one of claims 18 through 20 wherein R_1 and R' join together to form a ring system of the formula



, wherein A' is -N(-Q-R_4)- or -CH_2-, Q is a bond or -C(O)-, and R_4 is alkyl.

26. The compound or salt of claim 25 wherein the ring system is



, , or .

27. The compound or salt of any one of claims 18 through 20 wherein R_1 and R' are each methyl.

28. The compound or salt of any one of claims 18 through 27 wherein R_2 is hydrogen, alkoxyalkylenyl, -R_4, -X'-R_4, or -X'-Y-R_4; wherein X' is C_{1-2} alkylene; Y is -$S(O)_{0-2}$-, -$S(O)_2$-$N(R_8)$-, -$C(R_6)$-, -$C(R_6)$-O-, -O-$C(R_6)$-, -O-C(O)-O-, -$N(R_8)$-Q-, -$C(R_6)$-$N(R_8)$-, -O-$C(R_6)$-$N(R_8)$-, or -$C(R_6)$-$N(OR_9)$-; and R_4 is alkyl.

29. The compound or salt of claim 28 wherein R_2 is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

30. The compound or salt of claim 29 wherein R_2 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, 2-methoxyethyl, and methoxymethyl.

31. The compound or salt of any one of claims 18 through 27 wherein R_2 is selected from the group consisting of:

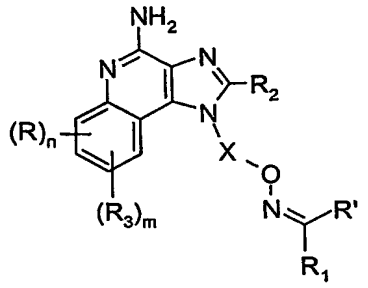
hydrogen,
alkyl,
alkenyl,
aryl,

heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl;
wherein:
Y" is –O– or $–S(O)_{0-2}$-; and
each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl.

32. The compound or salt of any one of claims 18 through 31 wherein R_A and R_B form a fused aryl ring or heteroaryl ring containing one N, wherein the aryl ring or heteroaryl ring is unsubstituted.

33. The compound or salt of any one of claims 18 through 31 wherein R_A and R_B form a fused 5 to 7 membered saturated ring, optionally containing one N, wherein the saturated ring is unsubstituted.

34. A compound of the formula (III):



III

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

each R is independently selected from the group consisting of:

halogen,
hydroxyl,
alkyl,
alkenyl,
haloalkyl,
alkoxy,
alkylthio, and
-N(R_9)$_2$;

R_1 and R' are independently selected from the group consisting of:

hydrogen,
alkyl,
alkenyl,
aryl,
arylalkylenyl,
heteroaryl,
heteroarylalkylenyl,

heterocyclyl,

heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

hydroxyl,

alkyl,

haloalkyl,

hydroxyalkyl,

alkoxy,

dialkylamino,

$-S(O)_{0-2}$-alkyl,

$-S(O)_{0-2}$-aryl,

$-NH-S(O)_2$-alkyl,

$-NH-S(O)_2$-aryl,

haloalkoxy,

halogen,

nitrile,

nitro,

aryl,

heteroaryl,

heterocyclyl,

aryloxy,

arylalkyleneoxy,

-C(O)-O-alkyl,

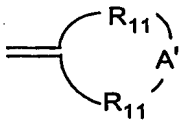
$-C(O)-N(R_8)_2$,

$-N(R_8)$-C(O)-alkyl,

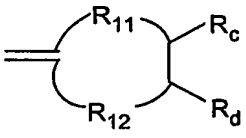
-O-C(O)-alkyl, and

-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

R_3 is selected from the group consisting of:

$-Z-R_4$,

$-Z-X'-R_4$,

$-Z-X'-Y-R_4$, and

$-Z-X'-R_5$;

each X' is independently selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

each Y is independently selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

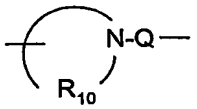
-O-C(O)-O-,

-N(R_8)-Q-,

-C(R_6)-N(R_8)-,

-O-C(R_6)-N(R_8)-,

-C(R_6)-N(OR_9)-,



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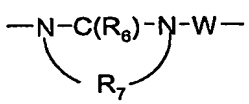

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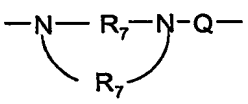

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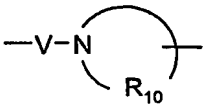
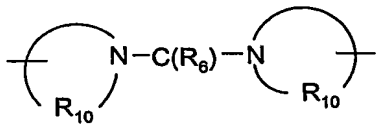


, and



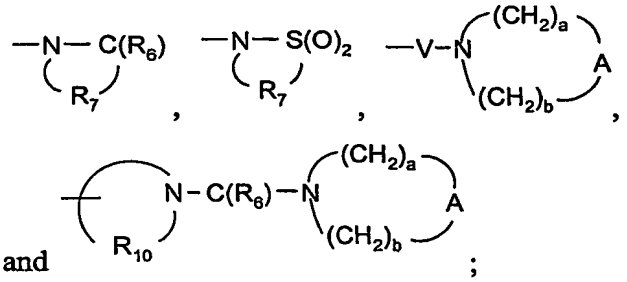
;

Z is a bond or -O-;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino,

dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

each R_5 is independently selected from the group consisting of:



and

;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

each A is independently selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and

$-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

each V is independently selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$;

a and b are independently integers from 1 to 6 with the proviso that a + b is $\leq$ 7;

n is an integer from 0 to 4; and

m is 0 or 1, with the proviso that when m is 1, n is 0 or 1;

or a pharmaceutically acceptable salt thereof.

35. The compound or salt of claim 34 wherein X is $-CH(R_{9a})$-alkylene-, wherein the alkylene is optionally interrupted by one or more -O- groups.

36. The compound or salt of claim 35 wherein X is $-C_{3-5}$ alkylene- or $-CH_2CH_2OCH_2CH_2-$.

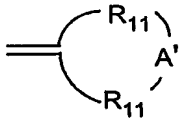
37. The compound or salt of any one of claims 34 through 36 wherein at least one of R' or R_1 is hydrogen.

38. The compound or salt of any one of claims 34 through 36 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

39. The compound or salt of claim 38 wherein at least one of R' or R_1 is aryl or substituted aryl and at least one of R' or R_1 is hydrogen.

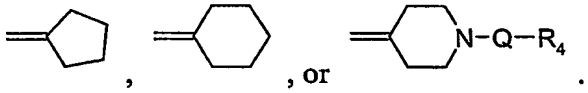
40. The compound or salt of claim 38 wherein at least one of R' or R_1 is heteroaryl or substituted heteroaryl and at least one of R' or R_1 is hydrogen.

41. The compound or salt of any one of claims 34 through 36 wherein R_1 and R' join together to form a ring system of the formula



, wherein A' is -N(-Q-R_4)- or -CH_2-, Q is a bond or -C(O)-, and R_4 is alkyl.

42. The compound or salt of claim 41 wherein the ring system is



, , or .

43. The compound or salt of any one of claims 34 through 36 wherein R_1 and R' are each methyl.

44. The compound or salt of any one of claims 34 through 43 wherein R_2 is hydrogen, alkoxyalkylenyl, -R_4, -X'-R_4, or -X'-Y-R_4; wherein X' is C_{1-2} alkylene; Y is -$S(O)_{0-2}$-, -$S(O)_2$-N(R_8)-, -C(R_6)-, -C(R_6)-O-, -O-C(R_6)-, -O-C(O)-O-, -N(R_8)-Q-, -C(R_6)-N(R_8)-, -O-C(R_6)-N(R_8)-, or -C(R_6)-N(OR_9)-; and R_4 is alkyl.

45. The compound or salt of claim 44 wherein R_2 is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

46. The compound or salt of claim 45 wherein R_2 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, 2-methoxyethyl, and methoxymethyl.

47. The compound or salt of any one of claims 34 through 43 wherein R_2 is selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

heteroaryl,

heterocyclyl,

alkylene-Y"-alkyl,

alkylene-Y"-alkenyl,

alkylene-Y"-aryl, and

alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

hydroxyl,

halogen,

$-N(R_{8a})_2$,

$-C(O)-C_{1-10}$ alkyl,

$-C(O)-O-C_{1-10}$ alkyl,

$-N_3$,

aryl,

heteroaryl,

heterocyclyl,

-C(O)-aryl, and

-C(O)-heteroaryl;

wherein:

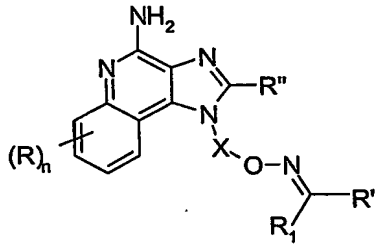
Y" is –O– or $-S(O)_{0-2}-$; and

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl.

48. The compound or salt of any one of claims 34 through 47 wherein m and n are each 0.

49. The compound or salt of any one of claims 34 through 47 wherein m is 1, and R_3 is phenyl, pyridin-3-yl, pyridin-4-yl, 5-(hydroxymethyl)pyridin-3-yl, 2-ethoxyphenyl, 3-(morpholine-4-carbonyl)phenyl, or 3-(*N,N*-dimethylaminocarbonyl)phenyl.

50. A compound of the formula (IV):



IV

wherein:

X is selected from the group consisting of –CH(R_{9a})-alkylene- and –CH(R_{9a})-alkenylene-;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

alkylene-aryl,

heteroaryl,

heterocyclyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl or heterocyclyl substituted by one or more substituents selected from the group consisting of:

hydroxyl,

alkyl,
haloalkyl,
hydroxyalkyl,
-O-alkyl,
-S-alkyl,
-O-haloalkyl,
halogen,
nitrile,
aryl,
heteroaryl,
heterocyclyl,
-O-aryl,
-O-alkylene-aryl,
-C(O)-O-alkyl,
-C(O)-N(R_{8a})$_2$, and
-N(R_{8a})-C(O)-alkyl;

or R_1 and R' can join together to form a ring system containing one or two saturated or unsaturated rings optionally including one or more heteroatoms;

n is an integer from 0 to 4;

each R and R" are independently selected from the group consisting of hydrogen and non-interfering substituents;

R_{9a} is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups; and

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl;

or a pharmaceutically acceptable salt thereof.

51. The compound or salt of claim 50 wherein X is -CH(R_{9a})-C_{1-5}alkylene-.

52. The compound or salt of claim 51 wherein X is propylene or butylene.

53. The compound or salt of any one of claims 50 through 52 wherein at least one of R' or R_1 is hydrogen.

54. The compound or salt of any one of claims 50 through 52 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

55. The compound or salt of claim 54 wherein at least one of R' or R_1 is aryl or substituted aryl and at least one of R' or R_1 is hydrogen.

56. The compound or salt of claim 54 wherein at least one of R' or R_1 is heteroaryl or substituted heteroaryl and at least one of R' or R_1 is hydrogen.

57. The compound or salt of any one of claims 50 through 52 wherein R_1 and R' join together to form a ring system.

58. The compound or salt of claim 57 wherein the ring system is optionally substituted by one or more substituents selected from the group consisting of alkyl, aryl, alkylene-aryl, and -C(O)-alkyl.

59. The compound or salt of any one of claims 50 through 58 wherein each R is independently selected from the group consisting of alkyl, alkoxy, halogen, hydroxyl, and trifluoromethyl.

60. The compound or salt of any one of claims 50 through 58 wherein n is 0.

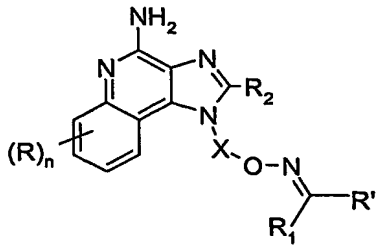
61. The compound or salt of any one of claims 50 through 60 wherein R" is selected from the group consisting of:

hydrogen,

alkyl,
alkenyl,
aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl;
wherein:
Y" is –O– or $–S(O)_{0-2}–$; and
each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl.

62. The compound or salt of claim 61 wherein R" is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

63. A compound of the formula (V):



V

wherein:

X is selected from the group consisting of –CH(R_{9a})-alkylene- and –CH(R_{9a})-alkenylene-;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

alkylene-aryl,

heteroaryl,

heterocyclyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl or heterocyclyl substituted by one or more substituents selected from the group consisting of:

hydroxyl,

alkyl,

haloalkyl,

hydroxyalkyl,

-O-alkyl,

-S-alkyl,

-O-haloalkyl,

halogen,

nitrile,

aryl,
heteroaryl,
heterocyclyl,
-O-aryl,
-O-alkylene-aryl,
-C(O)-O-alkyl,
-C(O)-N(R_{8a})$_2$, and
-N(R_{8a})-C(O)-alkyl;

or R_1 and R' can join together to form a ring system containing one or two saturated or unsaturated rings optionally including one or more heteroatoms;

n is an integer from 0 to 4;

each R is independently selected from the group consisting of alkyl, alkoxy, halogen, hydroxyl, and trifluoromethyl;

R_2 is selected from the group consisting of:

hydrogen,
alkyl,
alkenyl,
aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

hydroxyl,
halogen,
-N(R_{8a})$_2$,
-C(O)-C_{1-10} alkyl,
-C(O)-O-C_{1-10} alkyl,

$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl;

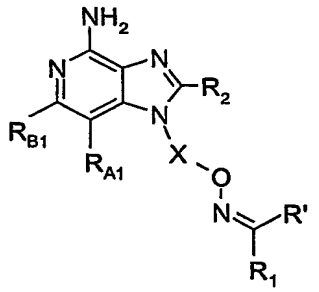
Y" is –O– or $–S(O)_{0-2}$-;

R_{9a} is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups; and

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl;

or a pharmaceutically acceptable salt thereof.

64. A compound of the formula (VI):



VI

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

R_1 and R' are independently selected from the group consisting of:
hydrogen,
alkyl,
alkenyl,
aryl,
arylalkylenyl,

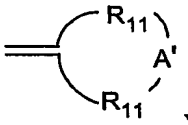
heteroaryl,
heteroarylalkylenyl,
heterocyclyl,
heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

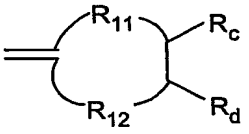
hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
alkoxy,
dialkylamino,
$-S(O)_{0-2}$-alkyl,
$-S(O)_{0-2}$-aryl,
$-NH-S(O)_2$-alkyl,
$-NH-S(O)_2$-aryl,
haloalkoxy,
halogen,
nitrile,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
$-C(O)-N(R_8)_2$,
$-N(R_8)-C(O)$-alkyl,
-O-C(O)-alkyl, and

-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

R_{A1} and R_{B1} are each independently selected from the group consisting of:

hydrogen,

halogen,

alkyl,

alkenyl,

alkoxy,

alkylthio, and

$-N(R_9)_2$;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

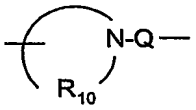
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

$-C(R_6)-N(OR_9)-$,



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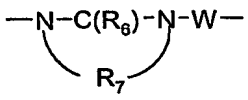

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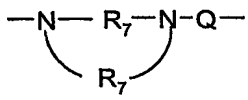

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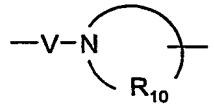
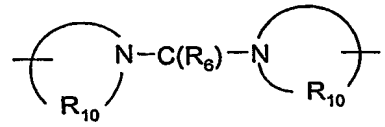


, and

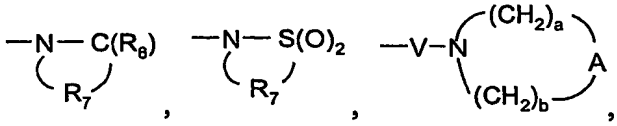


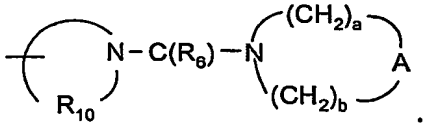
;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen,

nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



and  ;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

A is selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and

$-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and $-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, -C(O)-, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

or a pharmaceutically acceptable salt thereof.

65. The compound or salt of claim 64 wherein X is $-CH(R_{9a})$-alkylene-, wherein the alkylene is optionally interrupted by one or more -O- groups.

66. The compound or salt of claim 65 wherein X is $-C_{3-5}$ alkylene- or $-CH_2CH_2OCH_2CH_2-$.

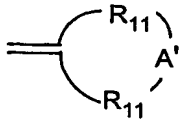
67. The compound or salt of any one of claims 64 through 66 wherein at least one of R' or R_1 is hydrogen.

68. The compound or salt of any one of claims 64 through 66 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

69. The compound or salt of claim 68 wherein at least one of R' or R_1 is aryl or substituted aryl and at least one of R' or R_1 is hydrogen.

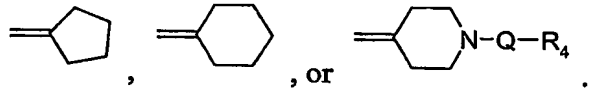
70. The compound or salt of claim 68 wherein at least one of R' or R_1 is heteroaryl or substituted heteroaryl and at least one of R' or R_1 is hydrogen.

71. The compound or salt of any one of claims 64 through 66 wherein R_1 and R' join together to form a ring system of the formula



, wherein A' is -N(-Q-R_4)- or -CH_2-, Q is a bond or -C(O)-, and R_4 is alkyl.

72. The compound or salt of claim 71 wherein the ring system is



, , or .

73. The compound or salt of any one of claims 64 through 66 wherein R_1 and R' are each methyl.

74. The compound or salt of any one of claims 64 through 73 wherein R_2 is hydrogen, alkoxyalkylenyl -R_4, -X'-R_4, or -X'-Y-R_4; wherein X' is C_{1-2} alkylene; Y is -$S(O)_{0-2}$-, -$S(O)_2$-$N(R_8)$-, -$C(R_6)$-, -$C(R_6)$-O-, -O-$C(R_6)$-, -O-C(O)-O-, -$N(R_8)$-Q-, -$C(R_6)$-$N(R_8)$-, -O-$C(R_6)$-$N(R_8)$-, or -$C(R_6)$-$N(OR_9)$-; and R_4 is alkyl.

75. The compound or salt of claim 74 wherein R_2 is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

76. The compound or salt of claim 75 wherein R_2 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, 2-methoxyethyl, and methoxymethyl.

77. The compound or salt of any one of claims 64 through 73 wherein R_2 is selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

heteroaryl,

heterocyclyl,

alkylene-Y"-alkyl,

alkylene-Y"-alkenyl,

alkylene-Y"-aryl, and

alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

hydroxyl,

halogen,

$-N(R_{8a})_2$,

$-C(O)-C_{1-10}$ alkyl,

$-C(O)-O-C_{1-10}$ alkyl,

$-N_3$,

aryl,

heteroaryl,

heterocyclyl,

-C(O)-aryl, and

-C(O)-heteroaryl;

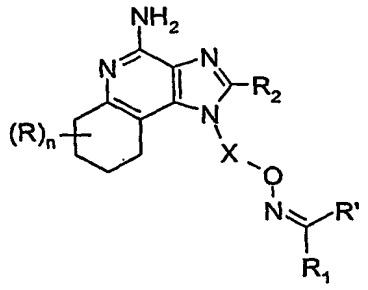
wherein:

Y" is –O– or $–S(O)_{0-2}–$; and

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl.

78. The compound or salt of any one of claims 64 through 77 wherein R_{A1} and R_{B1} are each methyl.

79. A compound of the formula (VII):



VII

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

each R is independently selected from the group consisting of:

halogen,

hydroxyl,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

-N(R_9)$_2$;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

arylalkylenyl,

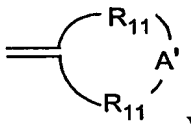
heteroaryl,
heteroarylalkylenyl,
heterocyclyl,
heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

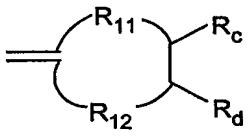
hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
alkoxy,
dialkylamino,
$-S(O)_{0-2}$-alkyl,
$-S(O)_{0-2}$-aryl,
$-NH-S(O)_2$-alkyl,
$-NH-S(O)_2$-aryl,
haloalkoxy,
halogen,
nitrile,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
$-C(O)-N(R_8)_2$,
$-N(R_8)-C(O)$-alkyl,
-O-C(O)-alkyl, and

-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

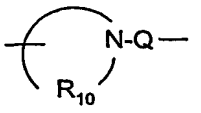
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

-C(R_6)-N(OR_9)-,



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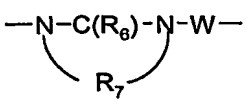

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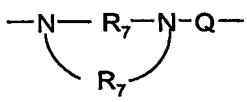

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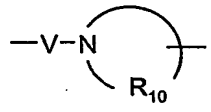

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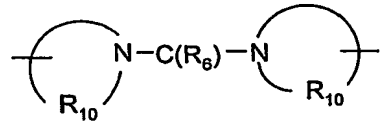
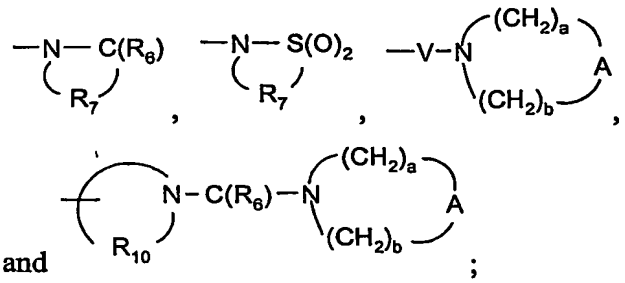


;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



and ;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

A is selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and $-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and

$-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$;

a and b are independently integers from 1 to 6 with the proviso that $a + b \leq 7$; and

n is an integer from 0 to 4;

or a pharmaceutically acceptable salt thereof.

80. The compound or salt of claim 79 wherein X is $-CH(R_{9a})$-alkylene-, wherein the alkylene is optionally interrupted by one or more -O- groups.

81. The compound or salt of claim 80 wherein X is $-C_{3-5}$ alkylene- or $-CH_2CH_2OCH_2CH_2-$.

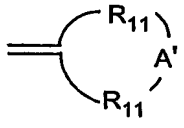
82. The compound or salt of any one of claims 79 through 81 wherein at least one of R' or R_1 is hydrogen.

83. The compound or salt of any one of claims 79 through 81 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

84. The compound or salt of claim 83 wherein at least one of R' or R_1 is aryl or substituted aryl and at least one of R' or R_1 is hydrogen.

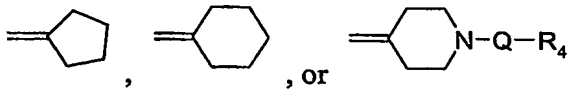
85. The compound or salt of claim 83 wherein at least one of R' or R_1 is heteroaryl or substituted heteroaryl and at least one of R' or R_1 is hydrogen.

86. The compound or salt of any one of claims 79 through 81 wherein R_1 and R' join together to form a ring system of the formula



, wherein A' is -N(-Q-R_4)- or -CH_2-, Q is a bond or -C(O)-, and R_4 is alkyl.

87. The compound or salt of claim 86 wherein the ring system is



, , or .

88. The compound or salt of any one of claims 79 through 81 wherein R_1 and R' are each methyl.

89. The compound or salt of any one of claims 79 through 88 wherein R_2 is hydrogen, alkoxyalkylenyl, -R_4, -X'-R_4, or -X'-Y-R_4; wherein X' is C_{1-2} alkylene; Y is -$S(O)_{0-2}$-, -$S(O)_2$-$N(R_8)$-, -$C(R_6)$-, -$C(R_6)$-O-, -O-$C(R_6)$-, -O-C(O)-O-, -$N(R_8)$-Q-, -$C(R_6)$-$N(R_8)$-, -O-$C(R_6)$-$N(R_8)$-, or -$C(R_6)$-$N(OR_9)$-; and R_4 is alkyl.

90. The compound or salt of claim 89 wherein R_2 is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

91. The compound or salt of claim 90 wherein R_2 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, 2-methoxyethyl, and methoxymethyl.

92. The compound or salt of any one of claims 79 through 88 wherein R_2 is selected from the group consisting of:

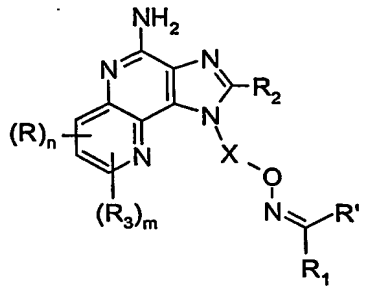
hydrogen,

alkyl,

alkenyl,
aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl;
wherein:
Y" is –O– or $–S(O)_{0-2}$-; and
each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl.

93. The compound or salt of any one of claims 79 through 92 wherein n is 0.

94. A compound of the formula (VIII):



VIII

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

each R is independently selected from the group consisting of:

halogen,

hydroxyl,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

-N(R_9)$_2$;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

arylalkylenyl,

heteroaryl,

heteroarylalkylenyl,

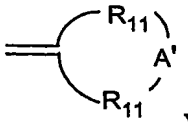
heterocyclyl,

heterocyclylalkylenyl, and

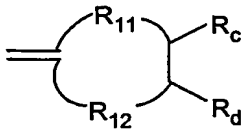
alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
alkoxy,
dialkylamino,
$-S(O)_{0-2}$-alkyl,
$-S(O)_{0-2}$-aryl,
$-NH-S(O)_2$-alkyl,
$-NH-S(O)_2$-aryl,
haloalkoxy,
halogen,
nitrile,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
$-C(O)-N(R_8)_2$,
$-N(R_8)-C(O)$-alkyl,
-O-C(O)-alkyl, and
-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

R_3 is selected from the group consisting of:

$-Z-R_4$,

$-Z-X'-R_4$,

$-Z-X'-Y-R_4$, and

$-Z-X'-R_5$;

each X' is independently selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

each Y is independently selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

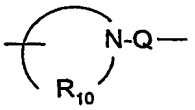
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

-O-C(R_6)-N(R_8)-,

-C(R_6)-N(OR_9)-,



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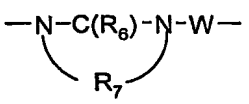

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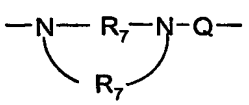

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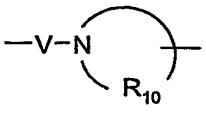
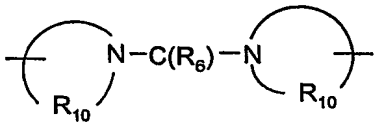


, and

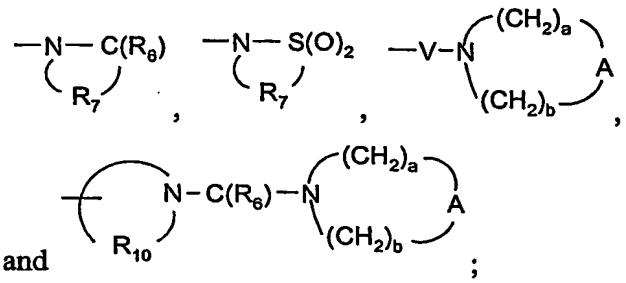


;

Z is a bond or -O-;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

each R_5 is independently selected from the group consisting of:



each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

each A is independently selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and $-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and

$-C(R_6)-N(OR_9)-$;

each V is independently selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$;

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

n is an integer from 0 to 3; and

m is 0 or 1, with the proviso that when m is 1, n is 0 or 1;

or a pharmaceutically acceptable salt thereof.

95. The compound or salt of claim 94 wherein X is $-CH(R_{9a})$-alkylene-, wherein the alkylene is optionally interrupted by one or more -O- groups.

96. The compound or salt of claim 95 wherein X is $-C_{3-5}$ alkylene- or $-CH_2CH_2OCH_2CH_2-$.

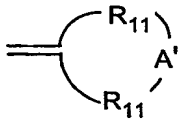
97. The compound or salt of any one of claims 94 through 96 wherein at least one of R' or R_1 is hydrogen.

98. The compound or salt of any one of claims 94 through 96 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

99. The compound or salt of claim 98 wherein at least one of R' or R_1 is aryl or substituted aryl and at least one of R' or R_1 is hydrogen.

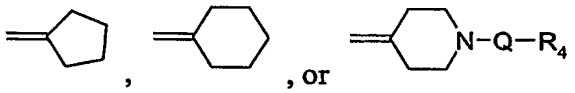
100. The compound or salt of claim 98 wherein at least one of R' or R_1 is heteroaryl or substituted heteroaryl and at least one of R' or R_1 is hydrogen.

101. The compound or salt of any one of claims 94 through 96 wherein R_1 and R' join together to form a ring system of the formula



, wherein A' is -N(-Q-R_4)- or -CH_2-, Q is a bond or -C(O)-, and R_4 is alkyl.

102. The compound or salt of claim 101 wherein the ring system is



, , or .

103. The compound or salt of any one of claim 94 through 96 wherein R_1 and R' are each methyl.

104. The compound or salt of any one of claims 94 through 103 wherein R_2 is hydrogen, alkoxyalkylenyl, -R_4, -X'-R_4, or -X'-Y-R_4; wherein X' is C_{1-2} alkylene; Y is -$S(O)_{0-2}$-, -$S(O)_2$-N(R_8)-, -C(R_6)-, -C(R_6)-O-, -O-C(R_6)-, -O-C(O)-O-, -N(R_8)-Q-, -C(R_6)-N(R_8)-, -O-C(R_6)-N(R_8)-, or -C(R_6)-N(OR_9)-; and R_4 is alkyl.

105. The compound or salt of claim 104 wherein R_2 is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

106. The compound or salt of claim 105 wherein R_2 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, 2-methoxyethyl, and methoxymethyl.

107. The compound or salt of any one of claims 94 through 103 wherein R_2 is selected from the group consisting of:

hydrogen,

alkyl,

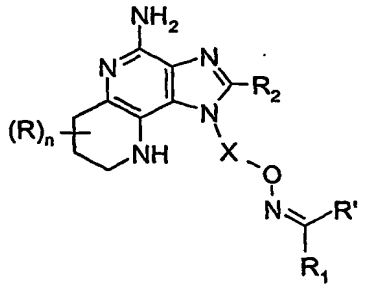
alkenyl,
aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl;
wherein:
Y" is –O– or $–S(O)_{0-2}$-; and
each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl.

108. The compound or salt of any one of claims 94 through 107 wherein m and n are each 0.

109. The compound or salt of any one of claims 94 through 107 wherein m is 1, and R_3 is phenyl, pyridin-3-yl, pyridin-4-yl, 5-(hydroxymethyl)pyridin-3-yl, 2-

ethoxyphenyl, 3-(morpholine-4-carbonyl)phenyl, or 3-(*N,N*-dimethylaminocarbonyl)phenyl.

110. A compound of the formula (IX):



IX

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

each R is independently selected from the group consisting of:

halogen,

hydroxyl,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

-N(R_9)$_2$;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

arylalkylenyl,

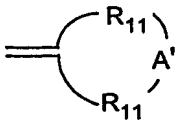
heteroaryl,
heteroarylalkylenyl,
heterocyclyl,
heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

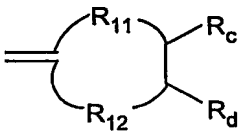
hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
alkoxy,
dialkylamino,
-$S(O)_{0-2}$-alkyl,
-$S(O)_{0-2}$-aryl,
-NH-$S(O)_2$-alkyl,
-NH-$S(O)_2$-aryl,
haloalkoxy,
halogen,
nitrile,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
-C(O)-$N(R_8)_2$,
-$N(R_8)$-C(O)-alkyl,
-O-C(O)-alkyl, and

-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

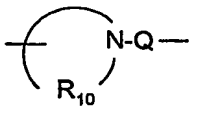
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

-C(R_6)-N(OR_9)-,



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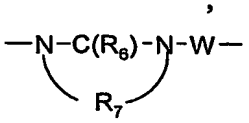

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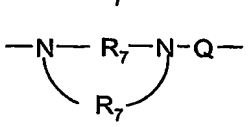

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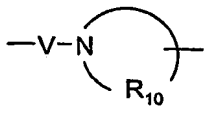
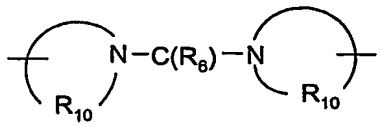


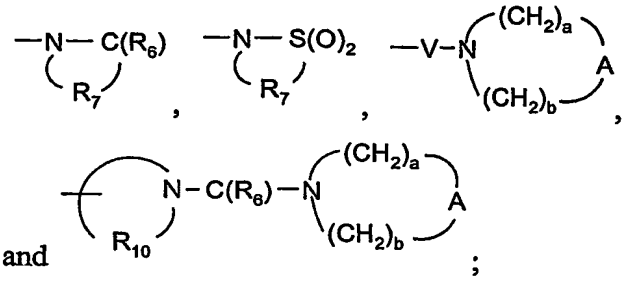
, and



;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

A is selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and $-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and

$-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$;

a and b are independently integers from 1 to 6 with the proviso that a + b is $\leq$ 7; and

n is an integer from 0 to 3;

or a pharmaceutically acceptable salt thereof.

111. The compound or salt of claim 110 wherein X is $-CH(R_{9a})$-alkylene-, wherein the alkylene is optionally interrupted by one or more -O- groups.

112. The compound or salt of claim 111 wherein X is $-C_{3-5}$ alkylene- or $-CH_2CH_2OCH_2CH_2-$.

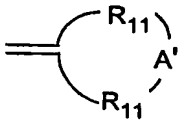
113. The compound or salt of any one of claims 110 through 112 wherein at least one of R' or R_1 is hydrogen.

114. The compound or salt of any one of claims 110 through 112 wherein at least one of R' or R_1 is selected from the group consisting of aryl, heteroaryl, and alkyl, wherein the aryl, heteroaryl, and alkyl are optionally substituted.

115. The compound or salt of claim 114 wherein at least one of R' or R_1 is aryl or substituted aryl and at least one of R' or R_1 is hydrogen.

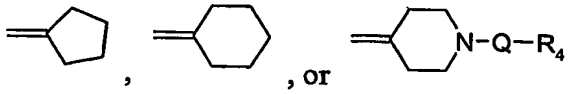
116. The compound or salt of claim 114 wherein at least one of R' or R_1 is heteroaryl or substituted heteroaryl and at least one of R' or R_1 is hydrogen.

117. The compound or salt of any one of claims 110 through 112 wherein R_1 and R' join together to form a ring system of the formula



, wherein A' is -N(-Q-R_4)- or -CH_2-, Q is a bond or -C(O)-, and R_4 is alkyl.

118. The compound or salt of claim 117 wherein the ring system is



, , or .

119. The compound or salt of any one of claims 110 through 112 wherein R_1 and R' are each methyl.

120. The compound or salt of any one of claims 110 through 119 wherein R_2 is hydrogen, alkoxyalkylenyl, -R_4, -X'-R_4, or -X'-Y-R_4; wherein X' is C_{1-2} alkylene; Y is -$S(O)_{0-2}$-, -$S(O)_2$-N(R_8)-, -C(R_6)-, -C(R_6)-O-, -O-C(R_6)-, -O-C(O)-O-, -N(R_8)-Q-, -C(R_6)-N(R_8)-, -O-C(R_6)-N(R_8)-, or -C(R_6)-N(OR_9)-; and R_4 is alkyl.

121. The compound or salt of claim 120 wherein R_2 is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

122. The compound or salt of claim 121 wherein R_2 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, ethoxymethyl, 2-methoxyethyl, and methoxymethyl.

123. The compound or salt of any one of claims 110 through 119 wherein R_2 is selected from the group consisting of:

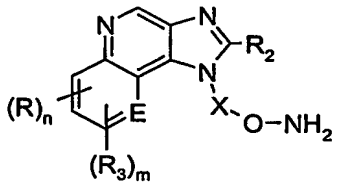
hydrogen,

alkyl,

alkenyl,
aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl;
wherein:
Y" is –O– or $–S(O)_{0-2}$-; and
each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl.

124. The compound or salt of any one of claims 110 through 123 wherein n is 0.

125. A compound of the formula (X):



X

wherein:

E is selected from the group consisting of CH, CR, CR_3, and N, with the proviso that when E is CR_3, m is 0, and n is 0 or 1, and with the further proviso that when E is CR and m is 1, n is 0;

X is selected from the group consisting of $-CH(R_{9a})$-alkylene- and $-CH(R_{9a})$-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

n is an integer from 0 to 3;

m is 0 or 1, with the proviso that when m is 1, n is 0 or 1;

each R is independently selected from the group consisting of:

halogen,

hydroxyl,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

$-N(R_9)_2$;

R_2 is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

R_3 is selected from the group consisting of:

$-Z-R_4$,

-Z-X'-R_4,

-Z-X'-Y-R_4, and

-Z-X'-R_5;

each X' is independently selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

each Y is independently selected from the group consisting of:

-$S(O)_{0-2}$-,

-$S(O)_2$-$N(R_8)$-,

-$C(R_6)$-,

-$C(R_6)$-O-,

-O-$C(R_6)$-,

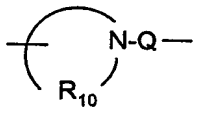
-O-C(O)-O-,

-$N(R_8)$-Q-,

-$C(R_6)$-$N(R_8)$-,

-O-$C(R_6)$-$N(R_8)$-,

-$C(R_6)$-$N(OR_9)$-,



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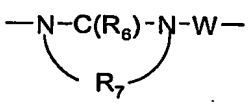

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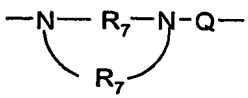

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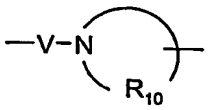
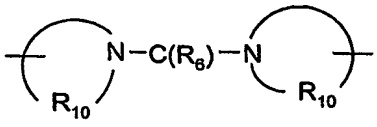


, and

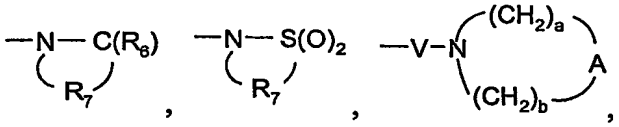


;

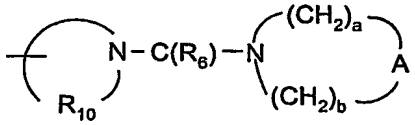
Z is a bond or -O-;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

each R_5 is independently selected from the group consisting of:



and



;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

each A is independently selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

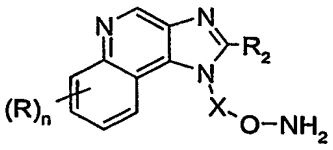
each V is independently selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, -C(O)-, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that $a + b \leq 7$;

or a pharmaceutically acceptable salt thereof.

126. A compound of the formula (XI):



XI

wherein:

X is selected from the group consisting of $-CH(R_{9a})$-alkylene- and $-CH(R_{9a})$-alkenylene-;

n is an integer from 0 to 4;

each R is independently selected from the group consisting of alkyl, alkoxy, halogen, hydroxyl, and trifluoromethyl;

R_2 is selected from the group consisting of:

hydrogen,

alkyl,
alkenyl,
aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl;

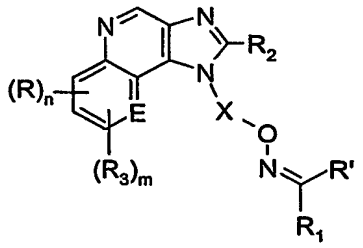
Y" is –O– or $–S(O)_{0-2}$-;

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl; and

R_{9a} is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

or a pharmaceutically acceptable salt thereof.

127. A compound of the formula (XII):



XII

wherein:

E is selected from the group consisting of CH, CR, CR_3, and N, with the proviso that when E is CR_3, m is 0, and n is 0 or 1, and with the further proviso that when E is CR and m is 1, n is 0;

X is selected from the group consisting of $-CH(R_{9a})$-alkylene- and $-CH(R_{9a})$-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

each R is independently selected from the group consisting of:

halogen,

hydroxyl,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

$-N(R_9)_2$;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

arylalkylenyl,

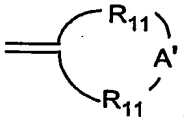
heteroaryl,
heteroarylalkylenyl,
heterocyclyl,
heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

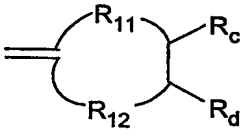
hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
alkoxy,
dialkylamino,
$-S(O)_{0-2}$-alkyl,
$-S(O)_{0-2}$-aryl,
$-NH-S(O)_2$-alkyl,
$-NH-S(O)_2$-aryl,
haloalkoxy,
halogen,
nitrile,
nitro,
aryl,
heteroaryl,
heterocyclyl,
aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
$-C(O)-N(R_8)_2$,
$-N(R_8)-C(O)$-alkyl,
-O-C(O)-alkyl, and

-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

R_3 is selected from the group consisting of:

$-Z-R_4$,

$-Z-X'-R_4$,

$-Z-X'-Y-R_4$, and

$-Z-X'-R_5$;

each X' is independently selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

each Y is independently selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

-O-C(R_6)-,

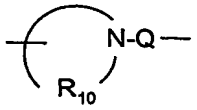
-O-C(O)-O-,

-N(R_8)-Q-,

-C(R_6)-N(R_8)-,

-O-C(R_6)-N(R_8)-,

-C(R_6)-N(OR_9)-,



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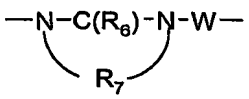

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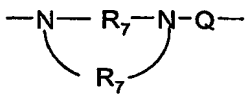

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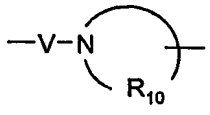

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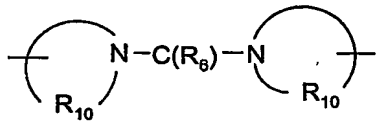


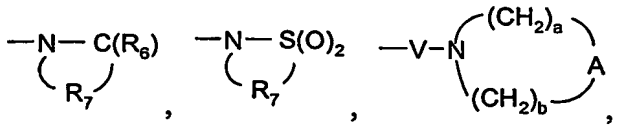
;

Z is a bond or -O-;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino,

dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

each R_5 is independently selected from the group consisting of:



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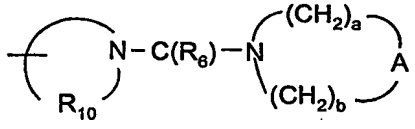


and ;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

each A is independently selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and

$-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

each V is independently selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$;

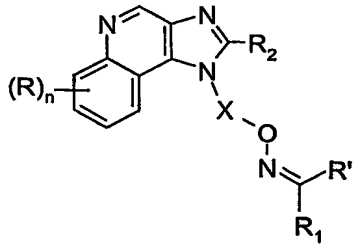
a and b are independently integers from 1 to 6 with the proviso that a + b is $\leq$ 7;

n is an integer from 0 to 3; and

m is 0 or 1, with the proviso that when m is 1, n is 0 or 1;

or a pharmaceutically acceptable salt thereof.

128. A compound of the formula (XIII):



XIII

wherein:

X is selected from the group consisting of $-CH(R_{9a})$-alkylene- and $-CH(R_{9a})$-alkenylene-;

n is an integer from 0 to 4;

each R is independently selected from the group consisting of alkyl, alkoxy, halogen, hydroxyl, and trifluoromethyl;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,
alkenyl,
aryl,
alkylene-aryl,
heteroaryl,
heterocyclyl, and
alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl or heterocyclyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
-O-alkyl,
-S-alkyl,
-O-haloalkyl,
halogen,
nitrile,
aryl,
heteroaryl,
heterocyclyl,
-O-aryl,
-O-alkylene-aryl,
-C(O)-O-alkyl,
-C(O)-N(R_{8a})$_2$, and
-N(R_{8a})-C(O)-alkyl;

or R_1 and R' can join together to form a ring system containing one or two saturated or unsaturated rings optionally including one or more heteroatoms;

R_2 is selected from the group consisting of:
hydrogen,
alkyl,

alkenyl,
aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl;

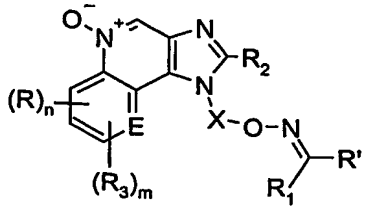
Y" is –O– or $–S(O)_{0-2}$-;

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl; and

R_{9a} is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups;

or a pharmaceutically acceptable salt thereof.

129. A compound of the formula (XIV):



XIV

wherein:

E is selected from the group consisting of CH, CR, CR_3, and N, with the proviso that when E is CR_3, m is 0, and n is 0 or 1, and with the further proviso that when E is CR and m is 1, n is 0;

X is selected from the group consisting of $-CH(R_{9a})$-alkylene- and $-CH(R_{9a})$-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

each R is independently selected from the group consisting of:

halogen,
hydroxyl,
alkyl,
alkenyl,
haloalkyl,
alkoxy,
alkylthio, and
$-N(R_9)_2$;

R_1 and R' are independently selected from the group consisting of:

hydrogen,
alkyl,
alkenyl,
aryl,
arylalkylenyl,
heteroaryl,
heteroarylalkylenyl,

heterocyclyl,

heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

hydroxyl,

alkyl,

haloalkyl,

hydroxyalkyl,

alkoxy,

dialkylamino,

$-S(O)_{0-2}$-alkyl,

$-S(O)_{0-2}$-aryl,

$-NH-S(O)_2$-alkyl,

$-NH-S(O)_2$-aryl,

haloalkoxy,

halogen,

nitrile,

nitro,

aryl,

heteroaryl,

heterocyclyl,

aryloxy,

arylalkyleneoxy,

-C(O)-O-alkyl,

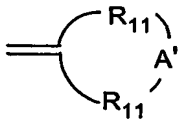
$-C(O)-N(R_8)_2$,

$-N(R_8)-C(O)$-alkyl,

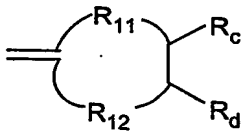
-O-C(O)-alkyl, and

-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

$-R_4$,

$-X'-R_4$,

$-X'-Y-R_4$, and

$-X'-R_5$;

R_3 is selected from the group consisting of:

$-Z-R_4$,

$-Z-X'-R_4$,

$-Z-X'-Y-R_4$, and

$-Z-X'-R_5$;

each X' is independently selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

each Y is independently selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

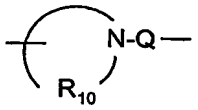
-O-C(O)-O-,

-N(R_8)-Q-,

-C(R_6)-N(R_8)-,

-O-C(R_6)-N(R_8)-,

-C(R_6)-N(OR_9)-,



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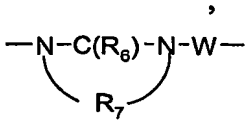

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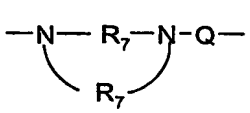

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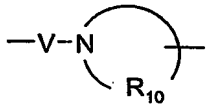
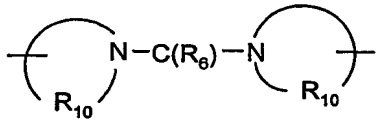


, and



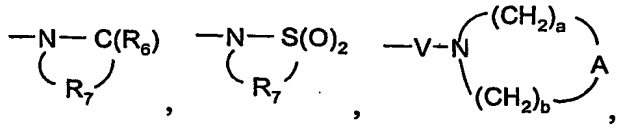
;

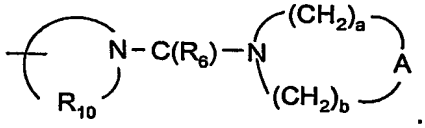
Z is a bond or -O-;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino,

dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

each R_5 is independently selected from the group consisting of:



and 

;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

each A is independently selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and

$-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

each V is independently selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$;

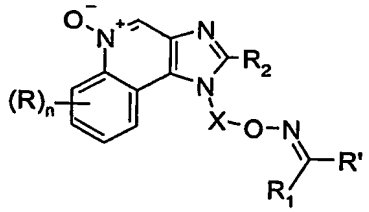
a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

n is an integer from 0 to 3; and

m is 0 or 1, with the proviso that when m is 1, n is 0 or 1;

or a pharmaceutically acceptable salt thereof.

130. A compound of the formula (XV):



XV

wherein:

X is selected from the group consisting of $-CH(R_{9a})$-alkylene- and $-CH(R_{9a})$-alkenylene-;

each R is independently selected from the group consisting of alkyl, alkoxy, halogen, hydroxyl, and trifluoromethyl;

n is an integer from 0 to 4;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,
aryl,
alkylene-aryl,
heteroaryl,
heterocyclyl, and
alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl or heterocyclyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
alkyl,
haloalkyl,
hydroxyalkyl,
-O-alkyl,
-S-alkyl,
-O-haloalkyl,
halogen,
nitrile,
aryl,
heteroaryl,
heterocyclyl,
-O-aryl,
-O-alkylene-aryl,
-C(O)-O-alkyl,
-C(O)-N(R_{8a})$_2$, and
-N(R_{8a})-C(O)-alkyl;

or R_1 and R' can join together to form a ring system containing one or two saturated or unsaturated rings optionally including one or more heteroatoms;

R_2 is selected from the group consisting of:
hydrogen,
alkyl,
alkenyl,

aryl,
heteroaryl,
heterocyclyl,
alkylene-Y"-alkyl,
alkylene-Y"-alkenyl,
alkylene-Y"-aryl, and
alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
hydroxyl,
halogen,
$-N(R_{8a})_2$,
$-C(O)-C_{1-10}$ alkyl,
$-C(O)-O-C_{1-10}$ alkyl,
$-N_3$,
aryl,
heteroaryl,
heterocyclyl,
-C(O)-aryl, and
-C(O)-heteroaryl,

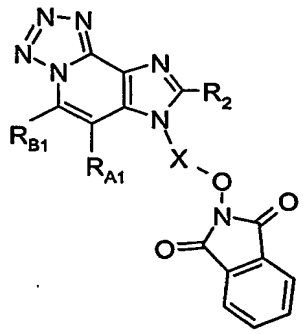
Y" is –O– or $–S(O)_{0-2}$-;

R_{9a} is selected from the group consisting of hydrogen and alkyl which may be optionally interrupted by one or more -O- groups; and

each R_{8a} is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, and C_{2-10} alkenyl;

or a pharmaceutically acceptable salt thereof.

131. A compound of the formula (XVI):



XVI

wherein:

X is selected from the group consisting of -CH(R_{9a})-alkylene- and -CH(R_{9a})-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

R_2 is selected from the group consisting of:

-R_4,

-X'-R_4,

-X'-Y-R_4, and

-X'-R_5;

R_{A1} and R_{B1} are each independently selected from the group consisting of:

hydrogen,

halogen,

alkyl,

alkenyl,

alkoxy,

alkylthio, and

-N(R_9)$_2$;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene,

heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

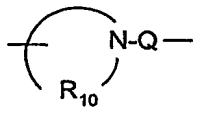
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

$-C(R_6)-N(OR_9)-$,



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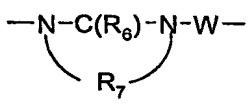

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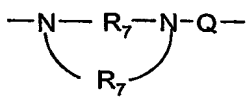

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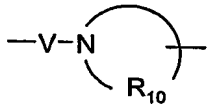
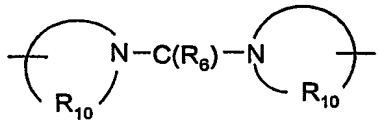


, and

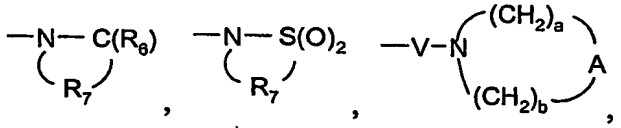


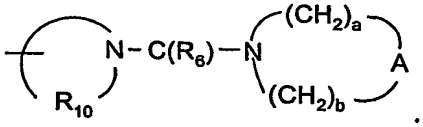
;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl,

heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



and  ;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

Q is selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

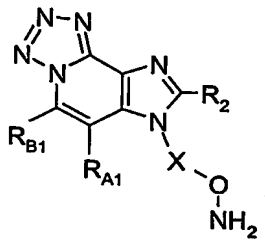
W is selected from the group consisting of a bond,

-C(O)-, and –$S(O)_2$-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

a pharmaceutically acceptable salt thereof.

132. A compound of the formula (XVII):



XVII

wherein:

X is selected from the group consisting of -$CH(R_{9a})$-alkylene- and -$CH(R_{9a})$-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

R_2 is selected from the group consisting of:

-R_4,

-X'-R_4,

-X'-Y-R_4, and

-X'-R_5;

R_{A1} and R_{B1} are each independently selected from the group consisting of:

hydrogen,

halogen,

alkyl,

alkenyl,

alkoxy,

alkylthio, and

-$N(R_9)_2$;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

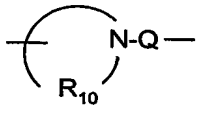
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

$-C(R_6)-N(OR_9)-$,



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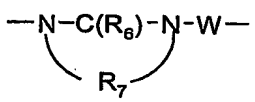

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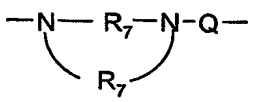

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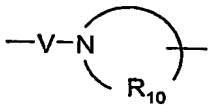
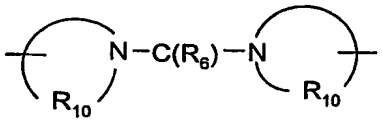


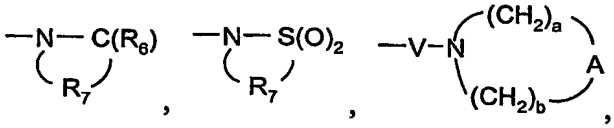
, and

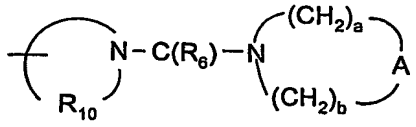


;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



and  ;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

Q is selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$,

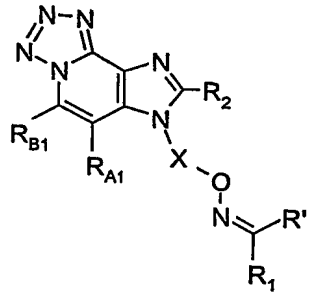
$-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

W is selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7; or a pharmaceutically acceptable salt thereof.

133. A compound of the formula (XVIII):



XVIII

wherein:

X is selected from the group consisting of $-CH(R_{9a})$-alkylene- and $-CH(R_{9a})$-alkenylene-, wherein the alkylene and alkenylene are optionally interrupted by one or more -O- groups;

R_{A1} and R_{B1} are each independently selected from the group consisting of:

hydrogen,

halogen,

alkyl,

alkenyl,

alkoxy,

alkylthio, and

$-N(R_9)_2$;

R_1 and R' are independently selected from the group consisting of:

hydrogen,

alkyl,

alkenyl,

aryl,

arylalkylenyl,

heteroaryl,

heteroarylalkylenyl,

heterocyclyl,

heterocyclylalkylenyl, and

alkyl, alkenyl, aryl, arylalkylenyl, heteroaryl, heteroarylalkylenyl, heterocyclyl, or heterocyclylalkylenyl, substituted by one or more substituents selected from the group consisting of:

hydroxyl,

alkyl,

haloalkyl,

hydroxyalkyl,

alkoxy,

dialkylamino,

$-S(O)_{0-2}$-alkyl,

$-S(O)_{0-2}$-aryl,

$-NH-S(O)_2$-alkyl,

$-NH-S(O)_2$-aryl,

haloalkoxy,

halogen,

nitrile,

nitro,

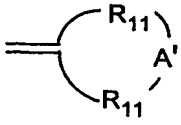
aryl,

heteroaryl,

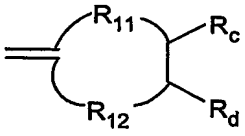
heterocyclyl,

aryloxy,
arylalkyleneoxy,
-C(O)-O-alkyl,
-C(O)-N(R_8)$_2$,
-N(R_8)-C(O)-alkyl,
-O-C(O)-alkyl, and
-C(O)-alkyl;

or R_1 and R' can join together to form a ring system selected from the group consisting of:



wherein the total number of atoms in the ring is 4 to 9, and



wherein the total number of atoms in the ring is 4 to 9;

R_2 is selected from the group consisting of:

-R_4,
-X'-R_4,
-X'-Y-R_4, and
-X'-R_5;

X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene, wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

-S(O)$_{0-2}$-,
-S(O)$_2$-N(R_8)-,
-C(R_6)-,

-$C(R_6)$-O-,

-O-$C(R_6)$-,

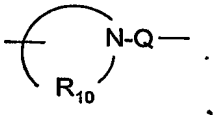
-O-C(O)-O-,

-$N(R_8)$-Q-,

-$C(R_6)$-$N(R_8)$-,

-O-$C(R_6)$-$N(R_8)$-,

-$C(R_6)$-$N(OR_9)$-,



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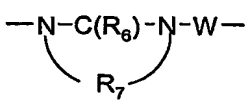

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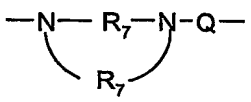

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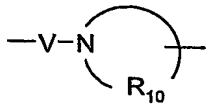
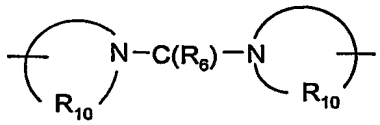


, and

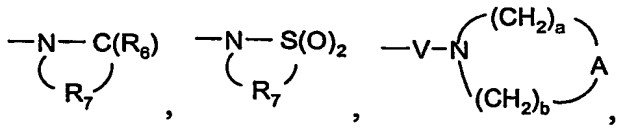


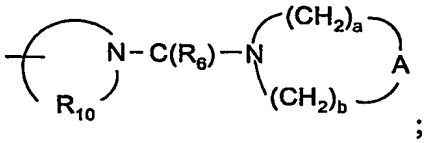
;

each R_4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl, wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxyl, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino,

dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:





and ;

each R_6 is independently selected from the group consisting of =O and =S;

each R_7 is independently C_{2-7} alkylene;

each R_8 is independently selected from the group consisting of hydrogen, C_{1-10} alkyl, C_{2-10} alkenyl, C_{1-10} alkoxy-C_{1-10} alkylenyl, and aryl-C_{1-10} alkylenyl;

each R_9 is independently selected from the group consisting of hydrogen and alkyl;

R_{9a} is selected from the group consisting of hydrogen and alkyl which is optionally interrupted by one or more -O- groups;

each R_{10} is independently C_{3-8} alkylene;

R_c and R_d are independently selected from the group consisting of hydrogen, halogen, hydroxyl, alkyl, alkenyl, aryl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$; or R_c and R_d can join to form a fused aryl ring or fused 5-10 membered heteroaryl ring containing one to four heteroatoms;

each R_{11} is independently C_{1-6} alkylene or C_{2-6} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

R_{12} is selected from the group consisting of a bond, C_{1-5} alkylene, and C_{2-5} alkenylene, wherein the alkylene or alkenylene is optionally interrupted by one heteroatom;

A is selected from the group consisting of -O-, -C(O)-, $-CH_2-$, $-S(O)_{0-2}-$, and $-N(R_4)-$;

A' is selected from the group consisting of -O-, $-S(O)_{0-2}-$, $-N(-Q-R_4)-$, and

$-CH_2-$;

each Q is independently selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

each W is independently selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that $a + b \leq 7$; or a pharmaceutically acceptable salt thereof.

134. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of any one of claims 1 through 124 in combination with a pharmaceutically acceptable carrier.

135. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of any one of claims 1 through 124 to the animal.

136. A method of treating a viral disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of any one of claims 1 through 124 to the animal.

137. A method of treating a neoplastic disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of any one of claims 1 through 124 to the animal.